

**ECONOMICS OF BAQ/RENT-PLUS
VERSUS
GOVERNMENT LEASING**
[USAREUR Family Housing]

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Prepared by
Engineer Studies Center
US Army Corps of Engineers

May 1985

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ECONOMICS OF BAQ/RENT-PLUS VERSUS GOVERNMENT LEASING

(USAREUR Family Housing)

**Prepared by
Engineer Studies Center
US Army Corps of Engineers**

May 1985

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ABSTRACT

The study evaluated the costs of providing family housing in the Federal Republic of Germany. Specifically, the average cost to the US Government of providing a soldier a government-leased family housing unit is compared with the average cost of supporting a soldier living in a privately leased family housing unit for which he draws a Basic Allowance for Quarters and a Rent-Plus Housing Allowance. The costs of furnishings and management were included in the computations of per unit annual costs for privately leased family housing units. For the computations of per unit annual costs for government-leased family housing units, the costs of utilities, maintenance, furnishings, services, and management were added. The study concluded that it costs the government almost 23 percent (\$1,066) more annually to house a soldier in government-leased family housing rather than in a privately leased family housing unit. Non-cost aspects of the total family housing picture were also treated.

*Additional keywords: Systems Analysis;
Tactical Data.*

EXECUTIVE SUMMARY

When the Engineer Studies Center (ESC) briefed the "Analysis of USAREUR Family Housing" study's results to the Vice Chief of Staff of the Army (VCSA) on 25 April 1985, the VCSA tasked ESC with three additional areas for study:

- * Compare the costs of privately leased family housing with the costs of government-leased family housing.

- * Evaluate USAREUR's projections of privately leased family housing rentals outlined in the April 1985 USAREUR Family Housing Acquisition Plan.

- * Explore the impediments to the Build-To-Lease program.

The first task is the subject of this report. Results of the analyses done for the remaining two tasks are described in "Overcoming Impediments to Government Leasing" and "Projection of Economy Assets," published under separate covers.

This study evaluated the costs of providing family housing in the Federal Republic of Germany (FRG). Specifically, the average cost to the US government of providing a soldier a government-leased family housing unit was compared with the average cost of supporting a soldier living in a privately leased family housing unit for which he draws a Basic Allowance for Quarters (BAQ) and a Rent-Plus Housing Allowance (RPHA). For the computations of a per unit annual costs for privately leased family housing units, the costs of furnishings and management were added. The costs of utilities, maintenance, furnishings, management, and services were included in the computations of per unit annual costs for government-leased family housing units.

In April 1985, 30,904 service members were participating in the RPHA program and residing in privately leased economy housing in the FRG (less Berlin). These service members were drawing approximately \$128.8 million annually in Rent-Plus and BAQ monies. Of this number, 21,555 soldiers were living in privately leased housing with their families. These soldiers drew a total of \$89.1 million annually from the RPHA program. By contrast, there were 10,279 government-leased family housing units which cost the government approximately \$29.6 million annually in lease payments.

For a detailed analysis by paygrade, a sample of MILCOMs was selected to represent the family housing situation in USAREUR. Seven MILCOMs were identified to provide a cross section of population density, MILCOM personnel composition, and geographical location. The seven MILCOMs contain about one-third of all government-leased and privately leased family housing in the FRG.

The study concluded that it costs the government almost 23 percent (\$1,066) per year more to house a soldier in government-leased family housing than in a privately leased family housing unit. For the seven MILCOMs analyzed in detail, it costs the government an average \$939 a year more to place a soldier in government-leased family housing than to support him in a privately leased unit.

If costs are compared by paygrade group, government-leased housing costs are \$761 less for field grade officers. Privately leased family housing is the least expensive means to house all other paygrades compared during this analysis. For example, an average annual savings of \$1,126 could be realized for each soldier of paygrade E4, E5, or E6 who was placed in privately leased rather than government-leased housing.

There is a total of 31,834 privately leased and government-leased family housing units in the FRG for which the Army spends \$163 million annually. A \$1,066 savings could be realized for each soldier switched from government-leased to a privately leased unit. Extending this relationship to all government-leased units in the FRG could save the government about \$11 million annually. Conversely, transferring all soldiers to government-leased units would cost an additional \$23 million annually. Of course, costs are not the only consideration in a real move of this sort.

In conclusion, the average annual cost per unit to the Army of government-leased family housing in the FRG is almost 23 percent more than the cost of privately leased family housing supported by RPHA and BAQ.

ECONOMICS OF BAQ/RENT-PLUS VERSUS GOVERNMENT LEASING

(USAREUR Family Housing)

I. INTRODUCTION

1. Purpose. This report evaluates the costs of providing family housing in the Federal Republic of Germany (FRG). Specifically, the average cost to the US Government of providing a soldier a government-leased family housing unit is compared with the average cost of supporting a soldier living on the economy in a privately leased family housing unit for which he draws a Basic Allowance for Quarters (BAQ) and a Rent-Plus Housing Allowance (RPHA).

2. Scope. This study:

a. Describes the cost elements that contribute to the total cost of both government-leased and privately leased family housing units.

b. Presents the cost of government-leased and privately leased family housing throughout the FRG (less Berlin).

c. Compares detailed unit costs for selected USAREUR military communities (MILCOMs).

d. Draws conclusions as to whether government-leased family housing is more (or less) expensive than privately leased family housing.

3. Background.

a. General. ESC conducted an analysis of the Army family housing program in Europe.¹ Although the ESC Family Housing Study was expected to be comprehensive, it purposely excluded an examination of three subject areas:

¹Department of the Army, US Army Corps of Engineers, Engineer Studies Center, Analysis of USAREUR Family Housing, Washington, D. C., April 1985.

(1) The study did not audit and/or validate USAREUR's estimate of the Army family housing deficit in Europe.

(2) Because USAREUR's acquisition plan was being developed concurrently with the execution of the ESC study, the ESC study team did not thoroughly analyze the plan.

(3) To avoid any duplication of effort already committed to another USAREUR-sponsored BTL study,² the ESC study did not recommend ways for improving the current USAREUR leasing process.

b. Follow-up requested. When ESC briefed the study's results to the VCSA on 25 April 1985, the VCSA tasked some of those present with additional actions (Annex A). ESC was asked to perform three tasks:

(1) Compare the costs of privately acquired economy family housing supported by BAQ and RPHA with the costs of government-leased housing.

(2) Examine USAREUR's projections of future growth in economy housing as outlined in the February 1985 USAREUR Family Housing Acquisition Plan.

(3) Identify and explore solutions to the impediments to the Build-To-Lease (BTL) program.

c. ESC response The first task is the subject of this report. Results of the analyses done for the remaining two tasks are described in "Overcoming Impediments to Government Leasing" and "Projection of Economy Assets," published under separate covers.

²Department of the Army, Office, Chief of Engineers, Directorate of Real Estate, Report on the Build-to-Lease Family Housing Program, Prepared by Barry J. Frankel, et al., for the Deputy Chief of Staff, Engineer, HQ USAREUR, Washington, D. C., 29 June 1984.

4. Method. The analysis described in this report was based on a review of current leasing and RPHA policies and practices and a comparison of the latest available costing data for government-leased and privately leased family housing for all of Germany.

a. ESC assembled and combined RPHA and BAQ expenditures and compared them with lease payments. Included in each type of lease arrangement--government and private--were operational costs. Comparisons were then made of all family housing unit costs in the FRG (less Berlin) by type of lease.

b. Because of the difficulty in obtaining and analyzing the data in the 30-day time limit, seven MILCOMs were selected and examined in detail to provide additional insights on the variability in comparative costs. The seven MILCOMs were carefully selected to represent USAREUR family housing and provide a broad cross section of civilian population densities and economic conditions. In addition, MILCOM personnel composition and geographical location were considered. The MILCOMs selected contain about one-third of all government-leased and privately leased family housing in the FRG and should correlate well with USAREUR-wide figures that were not examined in detail.

5. Assumptions and Their Significance.

a. ASSUMPTION: All costs used in this analysis were actual costs recorded by the USAREUR DCSENGR, the Real Estate Agency, Europe (REA), and the US Army Finance and Accounting Center (USAFAC).

SIGNIFICANCE: The cost comparison described in this report was based on actual expenditures instead of projected or estimated figures for some future years. As such, this report does not represent a typical economic analysis.

b. ASSUMPTION: Soldiers who either have no dependent family members or soldiers who are unaccompanied by their families were not considered to be part of the family housing picture for the purposes of this analysis.

SIGNIFICANCE: Although unaccompanied soldiers will sometimes live in privately leased housing and draw RPHA as well as BAQ or Family Separation Allowance, they cannot qualify for government-leased family housing. Only the costs of housing soldiers accompanied by their families were considered in this analysis.

c. ASSUMPTION: The costs of all items paid for in German Deutschmarks (DM) have been converted to dollars at the rate of 3.00 DM = \$1.00.

SIGNIFICANCE: Throughout FY 84 to the present, the dollar-to-Deutschmark exchange rate has fluctuated dramatically. Most of the leasing costs were paid in DMs using any of many exchange rates in effect during FY 84, whereas the RPHA costs were based on the April 1985 exchange rate of \$1 = DM 3.15. In order to make a valid comparison, the exchange rate was fixed at a realistic and convenient figure.

d. ASSUMPTION: The number of government-leased units are those that were reported by REA on 31 December 1984.

SIGNIFICANCE: Operational costs from USAREUR ODCSENGR were calculated based on FY 84 actual expenditures and the number of units from the February 1985 USAREUR Family Housing Acquisition Plan. Therefore, the total costs calculated for the number of units as reported by REA will not be equal to the FY 84 costs.

e. ASSUMPTION: The number of privately leased family housing units are those reported by the April 1985 RPHA data.

SIGNIFICANCE: Operational costs from USAREUR ODCSENGR were calculated based on FY 84 actual expenditures and the number of units from the February 1985 USAREUR Family Housing Acquisition Plan. Therefore, the total costs calculated from the number of units as reported by USAFAC will not be equal to the FY 84 costs.

f. ASSUMPTION: Housing costs of privately leased family units that exceed the ceiling of RPHA are not included in this analysis.

SIGNIFICANCE: RPHA ceilings are established for each paygrade and are designed to cover fully the housing costs of the first 8 of 10 service members, or the 80th percentile. Based on a recent study,³ indications were that most personnel do not cluster around the ceiling but are in fact below it. While it is recognized that some military personnel in privately leased housing incur housing expenses not covered by RPHA, this report concentrated solely on those costs paid by the government.

g. ASSUMPTION: The costs of existing BTL units were included with the costs of other government-leased family housing units.

SIGNIFICANCE: Because data on existing government-leased units was grouped into a single category, the costs of BTL units could not be contrasted to the cost of other government-leased family housing units.

h. ASSUMPTION: The cost of temporary quarters for soldiers awaiting permanent family housing is a family housing cost, but will not be included in this analysis.

SIGNIFICANCE: Although the length of stay in temporary quarters may depend on whether the soldier will be eventually assigned to

³Department of Defense, Office, Assistant Secretary of Defense (Manpower, Installations and Logistics), Rent-Plus Housing Allowance Study Report, Washington, D. C., March 1985.

government-leased or privately leased family housing, collecting actual data on the soldiers now living in each MILCOM would be extremely difficult considering the 30-day time limit for this study.

6. Terms of Reference.

a. BAQ. The BAQ is an allowance given to a soldier to help defray his housing costs. BAQ currently is set at 65 percent of the national median housing cost. (Median housing costs are based on residence size, price, utility costs, maintenance, and other housing expenses. After all data is collected, median housing costs are established for each paygrade.)

b. RPHA. The RPHA is a monthly allowance determined by subtracting a member's BAQ or Family Separation Allowance-Type 1 (FSA-1) from the sum of the rent a soldier pays, or the maximum rental ceiling established for the soldier's grade, whichever is applicable, plus the average utility or recurring maintenance costs and local moving in and out expenses. This allowance is authorized for all soldiers with or without dependents.

7. Costs Considered in This Analysis.

a. Privately leased family housing unit costs.

(1) RPHA costs. ESC examined RPHA costs for the single month of April 1985; this data was provided on a data tape by the USAFAC. For each service member, the data included geographical location, paygrade, amount of rent paid to the landlord, whether rent was paid in DMs or dollars, whether the soldier shared the unit, whether utilities were included in rental costs, and the amount of RPHA paid to the soldier. Utility costs are a constant. Their amount is based on locality and whether a service member is enlisted or an officer (i.e., \$105 or \$120 monthly for most of the FRG).

(2) BAQ costs. BAQ costs were calculated based on January 1985 rates, which are presently in effect.

(3) Other operational costs. The USAREUR DCSNGR, Budget Division, lists the costs of managing privately leased family housing units and providing furnishings as an average annual per unit cost. A different cost was reported for each MILCOM; it is based on the MILCOM's actual expenditures during FY 84. Since the DCSNGR's figures did not list the annual operational costs for Heidelberg's units, the USAREUR average was used in all operational cost calculations done for Heidelberg.

b. Government-leased housing costs.

(1) Government lease payments. Actual monthly lease payments for all leases active on 31 December 1984 were provided by the REA.

(2) Other lease costs. Costs of government leasing other than lease payments were provided by the USAREUR DCSNGR, Budget Division. They include the average annual per unit costs to provide utilities, services, and furnishings, and also to manage and maintain each unit. A different cost was reported for each MILCOM based on the MILCOM's actual expenditures during FY 84.

c. Management costs. Costs associated with managing government-leased family housing or privately leased family housing are:

(1) Family Housing Office: includes costs for installation-level direct family housing administration, office personnel management, supplies, office equipment, and family housing office utilities. Excludes costs for employees performing work in other functional areas.

(2) Administrative support: includes costs for indirect administrative support services incurred in supply, comptroller, facilities engineer, and other installation offices.

(3) Housing referral (for privately leased family housing only): includes administrative costs pertaining to private housing and referral services.

d. Service (for government-leased family housing only): includes costs for refuse collection and disposal, fire and police protection, pest control, custodial services, snow removal, street cleaning, municipal and other miscellaneous services, and salaries for wage board employees performing work for this mission.

e. Utilities (for government-leased family housing only): includes costs for electricity, gas, fuel oil, water, and sewage disposal incurred by family housing and supporting activities. Excludes the costs of maintaining and repairing utility systems and of telephone service.

f. Furnishings and equipment: includes costs for family housing furnishings, household equipment (e.g., clothes washers and dryers, ranges, refrigerators, portable dishwashers, and portable fans), equipment for moving household furniture, salaries for all employees performing work for this mission, miscellaneous items to the extent authorized for family housing by current regulations, and costs of initial issue, control, moving, handling, maintaining, repairing, and replacing furniture and equipment. Excludes built-in household equipment, such as hot water heaters, furnaces, under-counter dishwashers, and garbage disposals.

g. Lease payments--rent: includes costs for renting housing leased by the Department of the Army from foreign governments and private owners.

h. Maintenance (for government-leased family housing only): includes maintenance and repair costs for:

(1) Service calls. Minor work (usually fewer than 16 manhours) done on service calls, including emergency and temporary repairs; excludes interior and exterior painting.

(2) Routine maintenance. Normal change-of-occupancy work and other routine maintenance scheduled annually or more frequently, such as seasonally; excludes interior and exterior painting.

(3) Life-cycle maintenance. Repair and rehabilitation work (excluding improvement work) and replacement of major components and installed equipment (e.g., heating systems, hot water heaters, heat exchangers, or garbage disposals), and all interior and exterior painting.

II. COST COMPARISONS

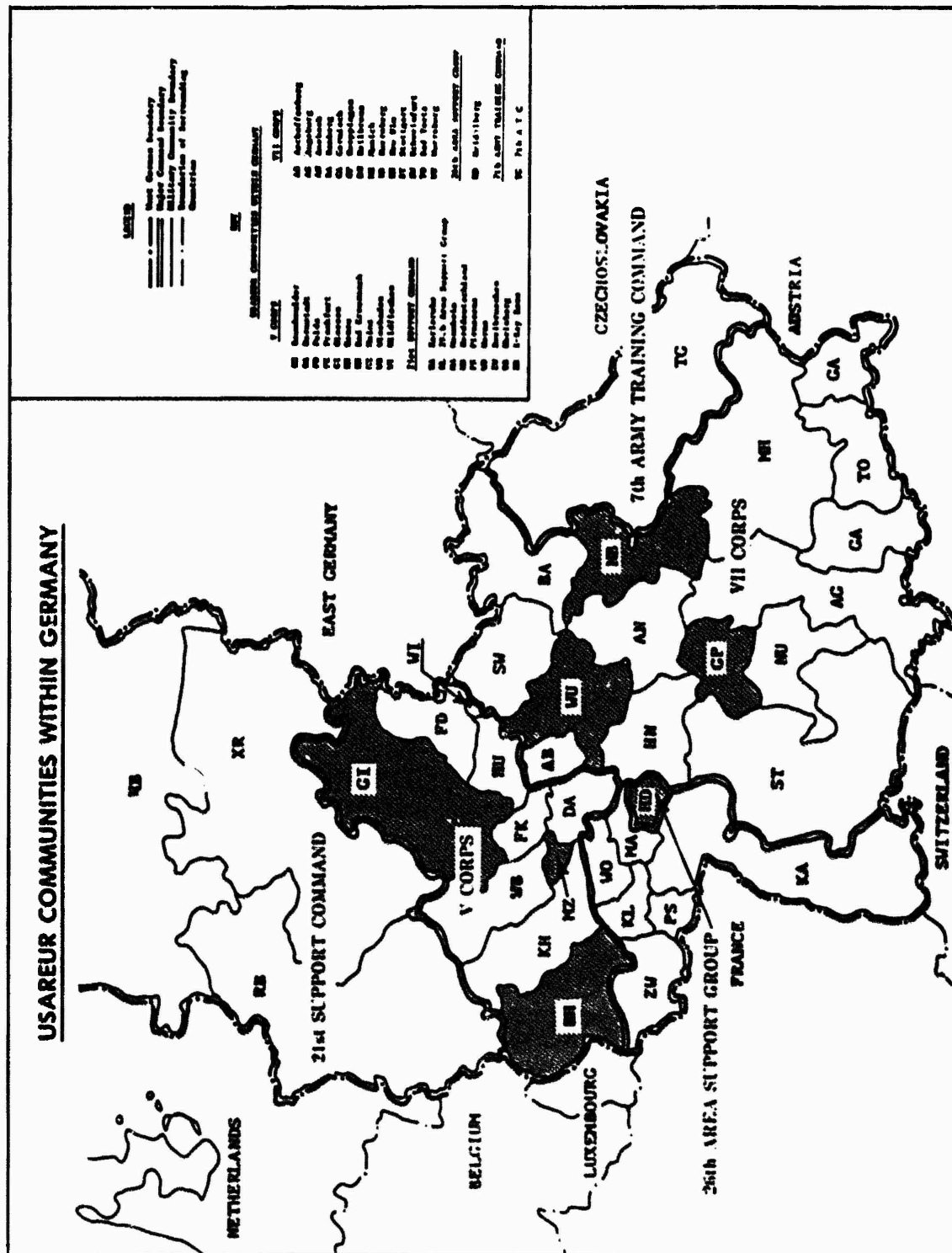
8. General. In April 1985, 30,904 service members were participating in the RPHA program and residing in privately leased housing in the FRG (Berlin excluded). These soldiers and airmen were drawing approximately \$128.8 million annually in RPHA and BAQ monies. Of this number, 21,555 soldiers were living with their families in privately leased housing. These soldiers drew a total of \$89.1 million annually from the RPHA program. By contrast, there were 10,279 government-leased family housing units which cost the government approximately \$29.6 million in lease payments annually.

9. Analysis Limitations. Because of the difficulty of obtaining detailed data in the 30-day time limit, seven MILCOMs were used to represent all USAREUR family housing in the FRG.

a. Figure 1 shows the seven MILCOMs chosen for this analysis. They were selected to provide a cross section of population density, MILCOM personnel composition, and geographical location. Each MILCOM has an active and sizable family housing program.

b. The seven MILCOMs represent 29.5 percent of all government-leased family housing and 30.9 percent of all privately leased family housing in the FRG. Figure 2 displays the number of privately leased and government-leased family housing units in each of the sampled MILCOMs, grouped by USAREUR Major Command (UMC).

10. Overall Comparison of Costs (Figure 3). The costs to the government of privately leased and government-leased housing units for each of the seven MILCOMs and the FRG as a whole are compared in Figure 3. The average annual cost per unit column demonstrates that government-leased family housing is always more expensive than privately leased family housing. An analysis of



SELECTED MILCOM SAMPLE FOR PRIVATELY LEASED AND
GOVERNMENT-LEASED FAMILY HOUSING

Military Community	Total Personnel Drawing RPHA	Accompanied Personnel Drawing RPHA	Government- Leased Family Housing Units
V Corps			
Baumholder	718	526	213
Giessen	1,311	934	599
Mainz	660	527	268
VII Corps			
Goeppingen	647	496	251
Nuernberg	2,948	2,269	730
Wuerzburg	2,235	1,434	586
26 Support Group			
Heidelberg	583	471	436
Sample Total	9,102	6,657	3,083
Total FRG*	30,904	21,555	10,279
Sample Percentage of Total	29.5	30.9	30.0
*Excludes Berlin.			

Figure 2

COST COMPARISON: PRIVATELY LEASED VERSUS GOVERNMENT-LEASED FAMILY HOUSING*

	Privately Leased Family Housing			Government-Leased Family Housing			Difference: Average Government- Lease Minus Average Private Unit Cost (\$)
	Number of Housing Units	Total Annual Cost** (\$)	Average Cost Per Unit (\$)	Number of Housing Units	Total Annual Cost** (\$)	Average Cost Per Unit (\$)	
Military Community							
V Corps							
Baumholder	526	2,359,024	4,485	213	1,198,303	5,626	1,141
Giesseu	934	4,657,759	4,987	599	3,254,549	5,433	446
Mainz	527	2,732,335	5,185	268	1,444,900	5,391	206
VII Corps							
Goeppingen	496	2,330,512	4,699	251	1,433,312	5,710	1,011
Nuernberg	2,269	10,637,770	4,688	730	4,246,346	5,817	1,129
Wuerzburg	1,434	6,240,318	4,352	586	3,218,394	5,492	1,140
26 Support Group							
Heidelberg	471	2,636,958	5,599	436	2,730,408	6,262	663
Sample MILCOM Total	6,657	31,594,676	4,746	3,083	17,526,212	5,685	939
PRC Total	21,555	102,849,181	4,771	10,279	59,995,732	5,837	1,066

*Costs are for accompanied military personnel.

**The annual costs shown were computed by multiplying the April 1985 (monthly) costs by 12 to get an annual cost. Thus, the costs shown are not equal to the FY 34 expenditures.

FRG housing units indicates that it costs almost 23 percent (\$1,066) more to house a soldier in government-leased family housing rather than a privately leased unit. For the seven MILCOMs, the difference in the average annual unit cost varies from a low of \$206 in Mainz to a high of \$1,141 in Baumholder.

11. Detailed Breakdown of Privately Leased Family Housing Costs (Figure 4).

a. In the seven MILCOMs, the Rent-Plus portion of the housing allowances accounts for only 8 percent of the monies (\$2.5 million of the total \$31.6 million) paid by the government to support service members living in privately leased units. BAQ payments make up almost 79 percent (or \$24.9 million) of the cost and are never less than 72 percent of the costs for any MILCOM. Thus, BAQ payments are the driving force in raising or lowering economy housing costs. The remaining 13 percent (\$4.2 million) is accumulated as operational costs.

b. There is a fairly wide range in the average annual cost per unit of privately leased units among the MILCOMs. Almost all the variance in the RPHA can be explained by the variance between MILCOMs. ESC expected housing costs to be higher in the densely populated metropolitan areas of some of the larger MILCOMs. Therefore, to determine the effect of location within a MILCOM, the study team examined the cost data for Nuernberg and Wuerzburg in greater detail to see if costs varied by city, suburb, or sub-community for the same paygrade. In Wuerzburg, average rent paid by the soldier was noticeably lower than that paid in Wertheim and Giebelstadt, although rents in the city of Wuerzburg were generally higher than the MILCOM-wide average. In Nuernberg, rents for units located in Nuernberg city proper were about the same as the MILCOM-wide average; rents in Erlangen, Feucht, Fuerth,

ANNUAL PRIVATELY LEASED FAMILY HOUSING COSTS*

Military Community	Population Density	RPHA Cost (\$)	BAQ Cost (\$)	Operational Cost (\$)	Total Cost (\$)	Number of Housing Units	Average Cost Per Unit (\$)
V Corps							
Baumholder	Low	57,360	1,864,032	437,632	2,355,024	526	4,485
Gieseen	Medium	523,191	3,346,272	788,296	4,657,759	934	4,987
Mainz	High	387,036	1,944,252	401,047	2,732,335	527	5,185
VII Corps							
Goeppingen	Medium	92,256	1,855,344	382,912	2,330,512	496	4,699
Muerenberg	High	970,968	8,391,624	1,275,178	10,637,770	2,269	4,688
Muerzburg	High	100,140	5,493,444	646,734	6,240,318	1,434	4,352
26 Support Group							
Heidelberg	High	363,720	1,972,740	300,498	2,636,958	471	5,599
Total		2,494,671	24,867,708	4,232,297	31,594,676	6,657	4,746
Percent of Total		7.9	78.8	13.4	100.0	--	--
Average		375	3,735	636	4,746	--	--
FRG Total		8,791,743	80,348,463	13,708,980	102,849,181	21,555	4,771

*Costs are for military personnel accompanied by dependents.

Figure 4

Herzogenaurach, Schwabach, and Zirndorf were higher than average for some paygrades, but lower than average for others. The differences cannot be explained by geographical location or population density. One theory is that a relatively large service member population distorts the normal housing market in these German communities. Higher housing costs could be perpetuated by soldiers competing for scarce housing.

12. Detailed Breakdown of the Government-Leased Housing Costs (Figure 5).

a. Actual lease payments account for almost 52 percent (\$9 million) of the \$17.5 million total government-lease costs for all seven MILCOMs. Only in Wuerzburg do operational costs exceed the cost of the lease payments. Although not shown, utility costs are about half of the operational cost, and therefore about one-fourth of the total lease costs.

b. ESC expected the newer leases and those with a smaller number of units to have a higher annual cost per unit. Figure 6, which shows all leases in the FRG by number of units, indicates that larger leases are less expensive. Figure 7 shows a breakdown of all leases in the FRG by the year acquired; although no overall trend is apparent, the last 2 years (1983 and 1984) were significantly higher than the norm for the cost of annual lease payments.

13. Overall Comparison of Costs by Paygrade Group (Figure 8). Figure 8 is similar to Figure 3, but it compares the overall cost for both government-leased and privately leased units by the paygrade groups used to assign a soldier to government-leased housing. Although government-leased housing is generally more expensive, it is the least expensive way to house the paygrade group which includes 04-05 and W4. It cost \$761 more annually to have field

ANNUAL GOVERNMENT-LEASED FAMILY HOUSING COSTS

Military Community	Population Density	Lease Cost (\$)	Operational* Cost (\$)	Total Cost (\$)	Number Housing Units	Average Cost Per Unit (\$)
V Corps						
Baumholder	Low	608,932	589,371	1,198,303	213	5,626
Giesseu	Medium	1,688,164	1,566,385	3,254,549	599	5,433
Mainz	High	733,092	711,808	1,444,900	268	5,391
VII Corps						
Goeppingen	Medium	775,692	657,620	1,433,312	251	5,710
Muennberg	High	2,344,696	1,901,650	4,246,346	730	5,817
Muerzburg	High	1,503,172	1,715,222	3,218,394	586	5,492
26 Support Group						
Heidelberg	High	1,391,016	1,339,392	2,730,408	436	6,262
Total		9,044,764	8,481,448	17,526,212	3,083	5,685
Percent of Total		51.6	48.4	100.0		
Average		2,934	2,751	5,685		
PRC Total		29,565,644	30,430,088	59,995,732	10,279	5,837

*Costs include utilities, management, operations, and maintenance as described in paragraph 7.

Figure 5

NUMBER OF GOVERNMENT-LEASED HOUSING UNITS IN THE FRG
(Less Berlin)

Number of Units in Lease	Number of Leases	Total Units	Total Annual Lease Payment	Average Annual Lease Payment Per Unit
5 or Less	393	725	2,231,188	3,077
6 to 10	69	1,245	4,036,828	3,242
11 to 25	25	2,139	6,085,152	2,845
26 to 50	68	2,512	7,011,120	2,791
51 to 100	31	2,086	5,940,280	2,848
101 to 200	6	820	2,301,392	2,807
201 and Over	3	752	1,959,684	2,606

Figure 6

GOVERNMENT-LEASED FAMILY HOUSING INVENTORY
(By Year Acquired)

Year Acquired	Total Leased Units	Average Units Per Lease	Total Annual Lease Payment	Average Annual Lease Payment	Percent of Total Inventory
1958	5	1.3	13,392	2,678	0.0
1959	18	6.0	38,548	2,142	0.2
1960	39	7.8	89,472	2,294	0.4
1962	6	1.0	18,888	3,148	0.0
1964	14	7.0	8,272	591	0.1
1966	110	36.7	171,516	1,559	1.1
1967	17	2.1	41,128	2,419	0.2
1968	14	1.6	39,672	2,834	0.1
1969	3	1.5	7,520	2,507	0.0
1971	30	2.1	89,552	2,985	0.3
1972	38	2.2	110,804	2,913	0.4
1973	202	16.8	576,804	2,855	2.0
1974	742	14.3	1,959,132	2,460	7.2
1975	984	21.9	2,756,460	2,801	9.6
1976	412	14.2	1,078,484	2,618	4.0
1977	766	24.7	1,932,632	2,523	7.5
1978	587	28.0	1,643,020	2,799	5.7
1979	700	21.9	1,858,832	2,655	6.8
1980	1,259	28.6	3,233,516	2,568	12.2
1981	733	36.7	2,161,176	2,948	7.1
1982	778	5.6	2,006,668	2,579	7.6
1983	981	7.8	3,278,984	3,342	9.5
1984	1,841	10.8	6,451,272	3,504	17.9
Total	10,279		29,565,644		100.0

Figure 7

COMPARISON OF PRIVATELY LEASED VERSUS GOVERNMENT-LEASED HOUSING
(By Service Grade for Seven MILCOMs Sampled)

Service Grade Group	Privately Leased Family Housing			Government-Leased Family Housing			Difference: Average Government- Leased Minus Private Unit Cost (\$)	
	Total Cost* (\$)	Total Units	Average Cost Per Unit* (\$)	Total Cost* (\$)	Total Units	Average Cost Per Unit* (\$)		
E1-E3**	1,803,058	439	4,107	0	0	0	--	
E4-E6	21,764,262	4,833	4,503	11,623,366	2,065	5,629	1,126	
E7-E9	2,661,647	485	5,488	2,480,646	432	5,742	254	
01-03 & W1-W3	4,128,942	725	5,695	2,672,708	466	5,735	40	
04-05 & W4	1,184,212	169	7,007	749,489	120	6,246	- 761	
Sample MILCOM Total	31,594,676	6,657	4,746	17,526,212	3,083	5,685	939	
FRG Total	102,849,181	21,555	4,771	59,995,732	10,279	5,837	1,066	

*Annual Costs

**E1-E3 are not normally housed in government-leased family housing units.

Figure 8

grade officers living in privately leased units, whereas a savings of \$1,126 annually could be realized for each E4, E5, or E6 who was placed in privately leased rather than government-leased housing.

14. Privately Leased Family Housing Costs by Paygrade Group (Figure 9).

As expected, the average unit cost increased with each higher paygrade group. As shown in Figure 10, the RPHA portion of the total housing allowance generally decreased with increasing grade. However, this decreasing trend in RPHA is more than offset by an increasing trend in the BAQ costs.

15. Government-Leased Family Housing Costs by Paygrade Group (Figure 11).

a. Government-leased housing costs shown in Figure 11 can be misleading and no clear trend is evident in the cost per unit for different paygrade groups. This may be explained by the fact that many government-leased units are occupied by service members from at least two paygrade groups and this levels out the per unit cost.

b. The unusually high cost for units for the 04-05 paygrade in Baumholder and Mainz appears to be because the number of units for this paygrade group is only one or two units. There are similar high cost units in the other MILCOMs, but the costs are camouflaged when they are averaged in among the costs for less expensive units.

c. The E1-E3 paygrade group was included to make Figure 11 symmetrical with Figure 9. No soldiers in paygrades E1-E3 appear to be in government-leased family housing in the seven MILCOMs surveyed. This is consistent with past Army policy that E1-E3s will be housed in government housing at a lower priority than all other paygrade groups.

PRIVATELY LEASED FAMILY HOUSING GRADE COMPARISON

Military Community	Service Grade Group	RPHA Cost (\$)	BAQ Cost (\$)	Operational Cost (\$)	Total Cost (\$)	Number of Housing Units	Average Cost Per Unit (\$)
Baumholder	E1-E3	11,903	140,238	40,768	192,909	49	3,937
	E4-E6	44,931	1,429,049	345,280	1,819,260	415	4,334
	E7-E9	520	123,066	22,464	146,050	27	5,409
	01-03 & W1-W3	0	159,611	27,456	187,067	33	5,669
	04-05 & W4	0	12,074	1,664	13,738	2	6,869
Giessen	E1-E3	80,795	283,338	83,556	447,689	99	4,522
	E4-E6	389,350	2,324,077	571,388	3,284,815	677	4,852
	E7-E9	10,865	264,370	48,952	324,187	58	5,589
	01-03 & W1-W3	42,107	449,684	81,024	572,815	96	5,967
	04-05 & W4	74	24,804	3,376	28,254	4	7,064
Mainz	E1-E3	34,320	120,204	31,962	186,486	42	4,440
	E4-E6	264,564	1,349,255	292,224	1,906,043	384	4,964
	E7-E9	17,847	131,022	22,069	170,938	29	5,894
	01-03 & W1-W3	67,281	326,816	52,509	446,606	69	6,473
	04-05 & W4	3,023	16,952	2,283	22,258	3	7,419
Goepfingen	E1-E3	10,493	88,722	23,932	123,147	31	3,972
	E4-E6	71,862	1,250,086	277,148	1,599,096	359	4,454
	E7-E9	3,021	186,667	31,652	221,340	41	5,399
	01-03 & W1-W3	6,871	238,422	38,600	283,893	50	5,678
	04-05 & W4	0	91,451	11,580	103,031	15	6,869
Nuernberg	E1-E3	82,920	397,818	78,118	558,856	139	4,021
	E4-E6	762,472	5,987,772	962,144	7,712,388	1,712	4,505
	E7-E9	41,859	683,755	84,300	809,914	150	5,399
	01-03 & W1-W3	82,459	1,135,111	133,194	1,350,764	237	5,699
	04-05 & W4	1,253	187,168	17,422	205,843	31	6,640
Wuersburg	E1-E3	12,554	183,168	28,264	224,586	64	3,509
	E4-E6	76,306	3,505,323	450,098	4,031,727	998	4,040
	E7-E9	2,494	530,784	52,316	585,594	116	5,048
	01-03 & W1-W3	8,790	1,009,743	96,063	1,114,596	213	5,233
	04-05 & W4	0	264,424	19,393	283,817	43	6,600
Heidelberg	E1-E3	16,885	42,930	9,570	69,385	15	4,626
	E4-E6	218,076	1,009,116	183,744	1,410,936	288	4,899
	E7-E9	63,770	299,023	40,832	403,625	64	6,307
	01-03 & W1-W3	20,635	1,356,334	17,226	173,195	27	6,415
	04-05 & W4	39,543	442,429	45,298	527,270	71	7,426

*Operational costs were computed based on the average of each particular community times the number of units in the community.

Figure 9

ANNUAL RPHA AND BAQ PAYMENTS BY GRADE
(Seven MILCOMs Examined)

Service Grade	Number in Grade	RPHA		BAQ		Average RPHA Plus BAQ Payment (\$)
		Total Cost (\$)	Average Payment (\$)	Total Payment (\$)	Average Payment (\$)	
E1	14	7,559	540	40,068	2,862	3,402
E2	36	18,882	525	103,032	2,862	3,387
E3	389	223,430	574	1,113,318	2,862	3,436
E4	2,123	1,031,834	486	6,611,022	3,114	3,600
E5	1,648	499,274	303	5,938,732	3,604	3,907
E6	1,062	296,452	279	4,304,923	4,054	4,333
E7	351	91,539	261	1,569,391	4,471	4,732
E8	119	45,096	379	571,914	4,806	5,185
E9	15	3,740	249	77,382	5,159	5,408
W1	29	13,563	468	118,494	4,086	4,554
W2	78	27,243	349	355,586	4,559	4,908
W3	42	17,946	427	208,051	4,954	5,381
W4	13	8,103	623	70,808	5,447	6,070
O1	56	30,095	537	217,526	3,884	4,422
O2	148	47,698	322	668,131	4,514	4,837
O3	372	91,603	246	1,886,933	5,072	5,319
O4	115	24,310	211	696,762	6,059	6,270
O5	41	11,482	280	271,731	6,628	6,908
ALL FRG	21,555	8,791,743	408	80,348,463	3,728	4,136

Figure 10

GOVERNMENT-LEASED FAMILY HOUSING GRADE COMPARISONS

Military Community	Service Grade Group	Lease Cost (\$)	Operational* Cost (\$)	Total Cost (\$)	Number of Housing Units	Average Cost Per Unit (\$)
Baumholder	E1-E3**	0	0	0	0	0
	E4-E6	517,995	498,060	1,016,055	180	5,645
	E7-E9	37,527	38,738	76,265	14	5,448
	01-03 & W1-W3	47,610	49,806	97,416	18	5,412
	04-05 & W4	5,800	2,767	8,567	1	8,567
Giessen	E1-E3**	0	0	0	0	0
	E4-E6	1,051,779	1,043,385	2,095,164	399	5,251
	E7-E9	229,385	196,125	425,510	75	5,673
	01-03 & W1-W3	307,416	245,810	553,226	94	5,885
	04-05 & W4	99,584	81,065	180,649	31	5,827
Mainz	E1-E3**	0	0	0	0	0
	E4-E6	589,615	555,104	1,144,719	209	5,477
	E7-E9	6,758	5,312	12,070	2	6,035
	01-03 & W1-W3	125,063	146,080	271,143	55	4,930
	04-05 & W4	11,656	5,312	16,968	2	8,484
Goepplingen	E1-E3**	0	0	0	0	0
	E4-E6	531,860	466,360	998,220	178	5,608
	E7-E9	125,180	94,320	219,500	36	6,097
	01-03 & W1-W3	99,824	81,220	181,044	31	5,840
	04-05 & W4	18,828	15,720	34,548	6	5,758
Nuernberg	E1-E3**	0	0	0	0	0
	E4-E6	1,752,711	1,388,465	3,141,176	533	5,893
	E7-E9	367,650	328,230	695,880	126	5,523
	01-03 & W1-W3	141,371	119,830	261,201	46	5,678
	04-05 & W4	82,964	65,125	148,089	25	5,924
Wuerzburg	E1-E3**	0	0	0	0	0
	E4-E6	626,992	784,436	1,411,428	268	5,267
	E7-E9	277,997	304,408	582,405	104	5,600
	01-03 & W1-W3	525,691	547,349	1,073,040	187	5,738
	04-05 & W4	72,491	79,029	151,520	27	5,612
Heidelberg	E1-E3**	0	0	0	0	0
	E4-E6	901,148	915,456	1,816,604	298	6,096
	E7-E9	238,617	230,400	469,017	75	6,254
	01-03 & W1-W3	128,118	107,520	235,638	35	6,733
	04-05 & W4	123,132	86,016	209,148	28	7,470

*Operational costs include utilities, management, operations, and maintenance as described in paragraph 7.

**E1-E3 are not normally housed in government-leased family units.

Figure 11

16. Sensitivity Analysis.

a. There are now 31,834 privately leased and government-leased family housing units in the FRG for which the Army spends \$162.8 million. As portrayed in Figure 3, a \$1,066 savings could be realized for each soldier switched from a government-leased to a privately leased unit. Extending this relationship to all government-leased units in the FRG could save the government about \$11 million annually. Conversely, transferring soldiers to all government-leased units would cost an additional \$23 million annually (see Figure 12).

COSTS OF THEORETICAL HOUSING MIXES

Family Housing Situation	Government-Leased Family Housing		Privately Leased Family Housing		FRG Total	
	Units	Cost (\$)	Units	Cost (\$)	Units	Savings (\$)
Current Status	10,279	59,995,732	21,555	102,849,181	31,834	162,844,913
All Govt-Leased	31,834	185,815,058	0	0	31,834	185,815,058 (-22,970,145)
All Privately Leased	0	0	31,834	151,880,014	31,834	151,880,014 (+10,964,899)

Figure 12

b. This analysis did not consider or quantify the intangible benefits associated with government-leased or privately leased family housing in the FRG. The benefit comparisons could include:

(1) Advantages of government leasing (i.e., BTL) when privately leased housing is not available in the German community.

(2) The quality of government-leased versus privately leased housing units.

(3) Sociological impact and advantages of clustered personnel in government-leased housing with regard to working and living in a foreign environment.

(4) Timeliness of acquiring privately leased versus government-leased family housing.

III. CONCLUSIONS

17. Primary Conclusion. In general, government-leased family housing is almost 23 percent more expensive for the US Government than is privately leased family housing supported by RPHA and BAQ.

18. Secondary Conclusions.

a. Government-leased family housing costs vary widely depending on the MILCOM date of lease acquisition, number of units in the lease, and pay-grade of the service member supported. Although generally more expensive than privately leased family housing, government-leased housing is actually 12 percent less expensive for field grade officers.

b. FRG-wide, BAQ and RPHA costs account for 86.7 percent of the privately leased family housing costs. Operational costs account for the other 13.3 percent. Privately leased family housing costs vary widely from one MILCOM to another as a result of the differences and availability of housing in the German communities.

c. FRG-wide, lease payments account for only 49.3 percent of the cost of government-leased housing. Operational costs account for the other 50.7 percent. Government-leased family housing costs vary widely among the MILCOMs as a result of USAREUR competing with local residents for housing in the communities.

LAST PAGE OF MAIN PAPER

ANNEX A

STUDY TASKER

ANNEX A

STUDY TASKER

DAEN-2CZ-A

25 April 1985

MEMORANDUM FOR RECORD

SUBJECT: VCSA Briefing on USAREUR AFH, 25 April 1985

1. This morning ESC and USAREUR ODCSENGR briefed the VCSA on the ESC study of AFH in Europe (ACC task at Tab A) and the USAREUR build-to-lease program (task at Tab B). At Tab C are the briefing charts; at Tab D is their report.
2. Below are comments and tasks arising from the briefing and discussion:
 - a. Include E-1's - E-3's in all requirements and program statements. (e.g., charts 12, 14, 19, 26).
 - b. Chart 11: VCSA challenged the DODI that establishes "...the local housing market...as the primary source of family housing..." and our exclusion of build-to-lease units from that category. VCSA directed we approach DOD to include government leasing as a "local housing market" solution as are individual SN leases or purchases (DCSPER) (note: there may be some pitfalls in doing this because it would force the elevation of the priority for the government leasing solution over construction versus the current flexibility we now enjoy).
 - c. Chart 17: VCSA questioned methodology used in projecting individual economy rentals. We directed ESC to "audit" that projection. His concern is that our construction and government leasing programs would be depressed by an optimistic individual rental forecast. (ESC).
 - d. Chart 19: VCSA stated that the top line is not the "requirement," but that portion of the total requirement USAREUR has decided to satisfy with government leasing. He asked for a chart that shows total requirement (USAREUR).
 - e. Chart 21: VCSA requested numbers of units in each step of the process. We pointed out that allocations are required at the letter of intent stage in negotiations. (USAREUR).
 - f. Chart 26: (1) VCSA questioned need for allocation at all. (DAEN-RE will review legal requirement).
 - (2) VCSA asked what total allocation would we want now to cover all projected requirements. (USAREUR).
 - (3) VCSA wants to get that total from Congress in '86 bill (ACE will work issue with SASC and NISC and prepare a letter from VCSA to Mr. Dellums, NISC Subcommittee Chairman. Letter and staff contacts will include allocations, 20-year lease authority, and furnishings funds -- three points I suggested to BASD(MIL) last week be included in a Dr. Korb reply to a Mr. Dellums question of what can be done to help the family housing situation in Europe.

DAEN-2CZ-A

SUBJECT: VCSA Briefing on USAREUR AFH, 25 April 1985

25 April 1985

3. General Thurman commented that ESC had not explored the impediments to the build-to-lease program. He believes if we have the funds (which we do) and the allocations (which we do for this year at least) we should be able to move the program much faster. He tasked SC to look at the impediments and let him know how we can get "out of the jam." He also asked ESC to show the economics of BAQ/Rent Plus vs. build-to-lease (ESC).

4. ESC agreed to a 30-day suspense for its tasks (para 2c, 3). /

4 Encl



HENRY J. HATCH
Major General, USA
Assistant Chief of Engineers

CT:
COE
DCOE
DCSPER
✓ Cdr, ESC
USAREUR DCSINCR
CLL
COA

LAST PAGE OF ANNEX A

ANNEX B

OPERATIONAL DIFFERENCES AND OTHER CONSIDERATIONS

ANNEX B

OPERATIONAL DIFFERENCES AND OTHER CONSIDERATIONS

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1. Government-Leased Family Housing.

a. Background. Congress has traditionally supported the use of government leasing as the primary method of addressing the overseas housing deficit. Initially, leasing was justified based on the argument that the government might obtain lower leasing rates than could individual service members privately leasing family housing on their own. The program was rooted in a US reluctance to commit to permanent construction, particularly in Europe. At first, the program focused on leasing existing economy housing units--basically the same type of German housing unit that the soldier could rent on his own. In areas where not enough existing economy assets could be

leased to satisfy the deficit, the Army has encouraged German contractors to construct family housing units which will, when complete, be leased by the Army and occupied by service members. USAREUR requires that the units are to be designed to be more like American units. To limit the lessor's financial risk so that offers can be obtained, the rent costs and the lease period can be structured to allow the lessor to recoup all or a substantial portion of the project's cost. These Build-to-Lease (BTL) projects normally take from 3 to 4 years from inception to completion, including construction.

b. Status. As of the end of March 1985, USAREUR government-leased housing inventory was 11,023 units, which satisfies roughly 12 percent of USAREUR's current housing requirement. If all the new assets scheduled to be acquired in the next 2 years actually enter the inventory, USAREUR will be leasing 11,732 units by the end of FY 85, and 13,545 units by the end of FY 86.

(1) USAREUR is actually authorized to lease 16,445 units. DA has also sanctioned over-solicitation by 1,000 units--a safety net which should offset any lease proposals or negotiations which are not completed or which fall through. And USAREUR has asked permission to augment its leasing authority even more; between FY 86 and FY 89, USAREUR would like an authorization increase of approximately 1,000 units.

(2) USAREUR exceeded its FY 84 goal of 10,541 units by 332 units. Status reports at the end of March 1985 show an additional 482 units acquired, 2,418 leased units covered by contract; letters of intent are on file for 1,075 more. There are also 1,175 units in negotiation and 2,045 units either in solicitation or on hold. Thus, 11,023 total units have been acquired and 6,713 are in some stage of execution for a total of 17,736 units.

2. Privately Leased Family Housing. Privately leased family housing is housing in the private sector in which the service member enters into a contract with a German landlord to rent a particular housing unit. There are many physical differences between American and German rental units; for example, a German landlord normally provides only plumbing and wiring connections--not appliances. German units often are smaller than American apartments, and rental costs fluctuate with the economy since German landlords are paid in local currency. To help US service members defray the costs of privately leasing housing overseas, Congress has enacted several measures.

a. The housing allowance (HA) index system. The HA index system was established by DOD in 1959 to help meet housing costs in areas where rental costs outstripped BAQ payments. The HA index system, however, was inequitable. It was directly related to an individual's rank, dependency status and location, rather than to actual housing costs. Thus, it underpaid personnel who had costs in excess of the average and overpaid personnel who had housing expenses less than the average. The BAQ, which was originally intended to approximate US housing costs, was considered an unrealistic standard for measuring excess housing costs overseas.

b. RPHA. In an attempt to purge these inequities from the system, the RPHA system of paying housing allowances was proposed in July 1978. The RPHA system was patterned after the "lodging-plus" concept developed by the General Accounting Office (GAO) for payment of travel per diem costs. The proposed Rent-Plus system was endorsed by GAO in March 1980 after the proposal had been studied and after 1979 and 1980 overseas station housing allowances were audited. The proposal then was approved by the Per Diem Travel and Transportation Allowance Committee (PLTATAC), and DOD began a worldwide

phase-in of the RPHA method on 1 July 1981. RPHA replaced the HA index system in the FRG in April 1982, after maximum rental allowance ceilings, average utility costs, and average moving in and out costs for the FRG had been developed.

c. The Rent-Plus operational concept. Under Rent-Plus, each service member receives a variable housing allowance; the dollar value of that allowance is based on his actual cost of lodging (subject to a ceiling), his paygrade, and his geographical location. It includes costs for average utility maintenance, and move-in and move-out expenses.

d. Status of RPHA. DOD guidance emphasizes acquiring and retaining privately leased housing assets. As of April 1985, USAREUR reported 30,904 military personnel under the Rent-Plus system for privately leased housing in the FRG (less Berlin) with a monthly RPHA outlay of \$10,734,451. (The actual number of units occupied is 30,021, since 1,764 service members share 881 units.)

3. Finding Housing for the Service Family. Although any soldier traveling to a USAREUR assignment can request concurrent family travel, USAREUR 1st PERSCOM grants those requests only if the MILCOM to which the soldier is assigned predicts it can house the service member and his family in government-leased or privately leased housing within 60 days. Thus, many soldiers come overseas alone, intending to bring their family over when they find suitable housing. Soldiers who are accompanied by their families stay in either government temporary family quarters or in a hotel. Since for most soldiers the wait for government quarters is extremely long, it is common practice for service members to put their names on a waiting list, then ask the Housing Referral Office (HRO) for help in finding quarters they can lease

privately. But the HROs are short-staffed, among other problems, and are less than efficient in placing the large numbers of service members who want and need to privately lease a housing unit compatible with American needs and tastes. Sometimes a desperate soldier will turn to a German realtor--who typically charges 1 to 2 months rent as a finder's fee. Very often, under pressure to find his family a home, the soldier will privately lease a housing unit which he will later consider unsuitable.

4. Landlord-Tenant Relationships.

a. Economy units. Although soldiers living in economy units often get along well with their landlords, cultural and language differences can upset even the most amicable relationship. Many soldiers do not speak German, so even the simplest transactions are difficult. The language and cultural barrier can escalate simple misunderstandings into major problems. The HRO must then step in to mediate the dispute.

b. Leased units. In contrast to the sometimes messy and irresolvable problems which grow from private leases, the Army acts as the middleman between the German landlord and the soldier-tenants who occupy government-leased units. As far as the soldier is concerned, the Army is the perfect landlord. There are no rent or utility payments and maintenance needs are referred to the housing office. When the soldier arrives he pays no deposit; when he leaves, he must only clean the unit. As far as the German owner is concerned, the Army is the perfect tenant. All rent is guaranteed and the landlord is protected from spurious tenant complaints. The owner can handle serious problems by negotiating with a German-speaking housing official.

5. Quality of the Family Housing Unit. Even though government-leased units and privately leased units are German-built housing, the quality of the

family housing unit is highly variable within both groups. Broadly speaking, government-leased units are superior to privately leased units for three reasons:

a. Government-leased units are selected by US housing experts who often spend many months, even years, negotiating a good price for quality units. Privately leased units are selected by sometimes confused and desperate service members who want to end their separation from their family or are anxious to get their family out of temporary quarters.

b. If government-leased units deteriorate too much, the lease will not be renewed. Thus, there is an incentive for the landlord to maintain the property to a standard not always met by privately leased units.

c. BTL units all are recently acquired new units built to specifications which are tailored more to American tastes and include such items as closets and built-in cabinets.

6. Furnishings. With government-leased housing or privately leased housing, the soldier's own furnishings are supplemented by American-style government furniture and appliances. But soldiers in privately leased units can use American-style washers, dryers, and refrigerators only if the electrical and plumbing connections are compatible.

7. Impact on Family Life.

a. The single most critical factor influencing the quality of life among soldiers living in either government-leased or privately leased housing is the number of other Americans living nearby. Even if he is stationed in the middle of Europe, the average soldier wants his family to live near other Americans. In this respect, government-leased housing has the advantage over most privately leased housing. The proximity of other Americans means the service member (and his family) can carpool to work and shopping and enjoy

neighbors with whom they can easily share experiences. Since soldiers and their spouses who privately rent housing often do not have Americans living nearby, they more strongly feel the effects of cultural isolation.

b. The single biggest disadvantage to "high-density" government-leased units is that sometimes work-related problems carry over into home life because co-workers are also neighbors. In addition, a soldier's rank can influence conflicts with other tenants, which can frustrate and anger the lower ranked individual.

8. Ease of Management. Leased units are generally easier for the Family Housing Office to manage than the privately leased units are for the HRO to manage. For example, government-leased housing tenant complaints can be gathered and presented to the landlord at a single sitting. By comparison, the HRO must hear each tenant and landlord complaint separately only after the individuals have failed to resolve the problem. By then, the dispute may already be out of control.

9. Unit Retention.

a. Privately leased housing. Retaining privately leased units is a constant problem for the HRO: although some privately leased units are lost at the end of a soldier's lease because the landlord has other plans for the unit (such as letting a relative live in it), many more units are lost as a result of soldier misbehavior or failure to pay rent and utilities. Some landlords also object to the damages caused by the frequent moving in and out so characteristic of Americans and so uncharacteristic of Germans.

b. Government-leased housing. Once government-leased housing is acquired, the Army can be assured of a number of quality units for the length of the lease--which might be as long as 10 years (although with some leases,

the cost is renegotiated every 1 to 2 years). If the government controls all the units in a building or complex of buildings, then tenant misconduct becomes an issue for the chain of command. Landlords can be assured that the rent and utilities will be paid on time. The damages to the building caused by frequent moving can be corrected by on-post facilities engineers or German contractors long before they become a reason for a landlord to refuse to renew a lease.

c. Ability to liquidate assets. In times of troop strength reductions, it would seem that the generally short term of a private lease (with its usual military transfer clause) would make economy units easier to liquidate than long-term government-leased units. But ESC's review of government leases in all USAREUR MILCOMs indicated that a significant number of these leases come up for renewal or termination every year; therefore, only in times of drastic strength reductions would the more general liquidity of privately leased units be an important issue.

10. Movement of Furnishings and Equipment. Each time privately leased unit is rented to or vacated by a soldier, the MILCOM must deliver or pickup all furniture and appliances (unless, as sometimes happens, another soldier is moving into or out of the same unit). But government-leased units have a more stable occupancy rate--some units will keep the same furnishings for years. The occasional tasks needed to add or remove furniture can be grouped for multi-unit leases. (This fact is not directly evident in ESC's costing analysis, since the operational costs listed in Figures 9 and 11 of the main paper include the purchase price of new furnishings.)

11. Maintenance. The maintenance of government-leased housing is not the responsibility of the soldier-tenant. By contrast, maintenance in

privately leased housing must be done by the tenant to the extent specified in the lease. But the soldier who privately rents a housing unit may not be able to determine his own maintenance responsibilities because he cannot read the lease--which is sometimes written only in German. He may only discover the true extent of his liability when substantial maintenance costs are subtracted from his deposit when he moves out.

12. Response to Currency Fluctuations. Soldiers living in government-leased units do not have to manage currency fluctuations, since the Army pays their housing costs. Since they do not pay the rent, it does not matter to them what exchange rate the Army uses to calculate the lease payments. By contrast, the exchange rate drives the daily economic decisions of the soldier living in privately leased housing. He receives his pay and all housing allowances (BAQ and RPHA) in dollars. At some point during the month, he must convert enough dollars to DMs to pay his rent at month's end. For example, suppose an E5 in Baumholder pays DM 800 in rent and about DM 130 for utilities--a total of DM 930. For housing he received, in April, \$300.00 in BAQ and \$20.70 RPHA--a total of \$321.00. Suppose he converts that \$321 on payday for DM 2.80 = \$1.00 and receives DM 898.80. Two weeks later, the exchange rate has increased to DM 2.95 = \$1.00 and his \$321 is worth DM 930.90. In the first case, his BAQ and RPHA will not cover his costs; in the second instance, he just breaks even. It should be noted that the tables of RPHA ceilings are updated monthly to make adjustments for the currency fluctuations; however, the system is reacting to currency fluctuations that occurred as long as 2 months ago. The constant changes in the exchange rate can wreak havoc on a soldier's budget, since some of his expenses are in dollars and others are in DMs.